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Blue Economy Cooperative Research Centre: Australia can be a leader in wave energy – but the time to act is now

Clean renewable energy from harnessing ocean waves can be a critical enabler in helping Australia achieve its Net Zero targets – and we are uniquely well-placed to lead in this space, a new report shows.

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Commissioned by the Blue Economy Cooperative Research Centre and led by a team of researchers at The University of Western Australia's Ocean Institute, the *Ocean Wave Energy in Australia* report details the opportunities, application, integration and development of an ocean energy industry in Australia.

With the world's largest and most consistent national wave energy resource along Australia's southern coast, there is immediate potential for renewable energy development in the face of climate change – but the report also shows that there is even more value in waves.

Wave energy can be highly complementary to solar and dispatched to coastal electricity grids, reducing the need for battery storage as part of resilient clean energy systems, while wave energy converting technologies can potentially be co-located with offshore wind installations and play a role in coastal protection.

UWA Oceans Institute Director Professor Christophe Gaudin said *The Ocean Wave Energy in Australia* report had gathered the expertise of leading scientists in the country to demonstrate the potential of ocean energy in Australia.

"We hope that this document can assist policymakers and decision-makers to support the development of wave energy and to accelerate decarbonisation of the Australian economy," Professor Gaudin said.

The International Energy Agency has forecast the ocean energy sector to grow to more than 300 gigawatts by 2050, and Europe and other regions are advancing wave energy with funding support and policy – but Australia is yet to tap into its share of these deployments and their economic benefits and jobs.

In addition to its natural assets, the report also highlights how Australia already has worldclass research, innovation, and technology development capabilities and expertise, and a skilled workforce, to support the wave energy industry.

Despite all its strategic advantages, Australia currently lacks the vision, strategy, and support required to match its immense potential.

UWA Research Fellow Dr Hugh Wolgamot, one of the report's lead authors, said the overarching recommendation of the report was that federal and state governments in Australia should take a strategic view of the wave energy industry.

"This will help us can get maximum national benefit from this potentially critical resource," Dr Wolgamot said.